

The occupation time for exclusion processes

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Abstract:

In this talk I will present a replacement lemma, known as "second-order Boltzmann-Gibbs Principle", which was recently introduced in Gonçalves and Jara (10') "Universality of the KPZ equation", from which we derive the scaling limits for additive functionals of exclusion processes. In the case of the occupation time, this principle says that this functional is very well approximated to the density of particles. As a consequence, the scaling limits of the occupation time follow from the well-known scaling limits of the density of particles. I will present some examples and I will discuss the case of asymmetric jump rates.

This is a joint work with Milton Jara (IMPA-Brazil).